Emergency Switch Device (ESD)/ Contacts port adapter card

Installation and operation manual

Congratulations for purchasing our ESD/Porta a Contatti adapter card.

This manual will guide you in installing the card and configuring it correctly. We recommend that you keep it together with the UPS manual for future consultation purposes.

ENGLISH

1 PRESENTATION

KIT CONTENTS

- ESD/Contacts port adapter card
- Metal slot cover
- This manual

DESCRIPTION AND CHARACTERISTICS

The ESD/Contacts port card is installed in the appropriate slot on the rear of the UPS. The card has two removable terminal boards. One of these terminal boards has the ESD signal (UPS Emergency ShutDown) and the RSD signal (Remote ShutDown). Other signals can also be associated with the card, such as Battery Working, Bypass, Alarm and Battery Low, through zero-potential switchover or normally open contacts.

WARNING: the contacts inside the board capable of carrying a max. current of 3A at 250Vac

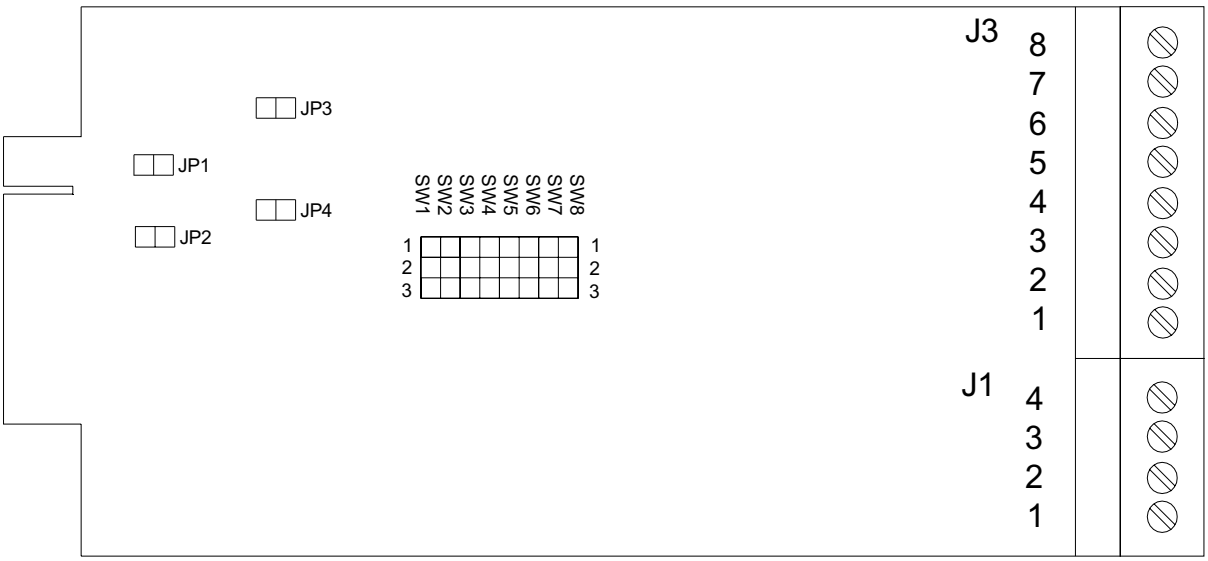


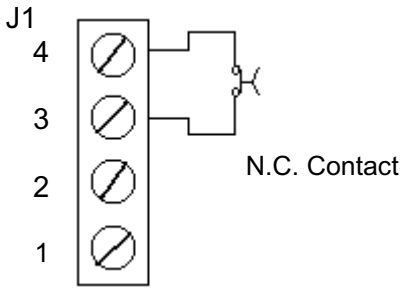
Figure 1: Allocation of setting points and the terminal boards

2 J1 TERMINAL BOARD – DESCRIPTION AND CONFIGURATION

EMERGENCY INPUT (ESD)

The Emergency input (ESD) allows the immediate and safe shutdown of the UPS in any emergency situation.
With the two terminals on the ESD input connected together (with wire strap, or emergency button with N.C. contact, etc.), the UPS operates normally. If the connection is opened, the UPS will shutdown immediately and cannot be switched on until the connection is closed again.

INSTALLATION: to use the ESD feature, remove the jumper from the terminal board and replace it with one or more NC contacts connected in series, (e.g. emergency buttons).

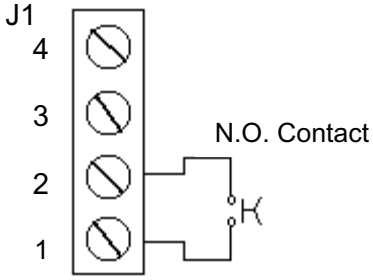


WARNING. If the strap is removed when the card is inserted in the UPS, the latter, if on, will be shutdown.

REMOTE SHUTDOWN INPUT (RSD)

This allows you to shutdown the UPS with a remote command such as an external control panel, a PLC output contact, a power switch on an electric control panel, etc.
Connecting the two terminals at the RSD inlet, the UPS is shut down. If the connection is re-opened, the UPS remains off and must be switched on again manually (if the command was given when mains power was off and the UPS is programmed to automatically power up after a remote shutdown command, the UPS will power up automatically when mains power returns).

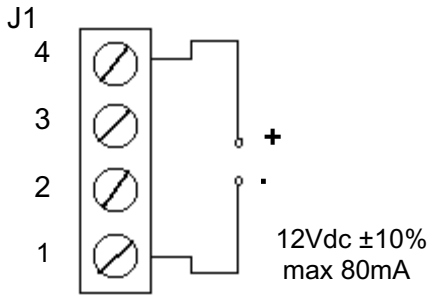
INSTALLATION: to use the RSD feature, connect one or more NO contacts together in parallel (e.g. external control panel).



IMPORTANT. When this configuration is used, the strap between terminals 3 and 4 must remain connected.

POWER SUPPLY OUTPUT

The J1 terminal board has a 12Vdc power supply that can be used by the user provided no more than the 80mA available is drawn.



3 DESCRIPTION AND CONFIGURATION OF THE CONTACTS PORT SECTION

CONFIGURATION OF THE CONTACTS PORT SECTION

The Bypass, Battery Working, Battery Low and Alarm signals can be associated with the four relays on the card (two with switchover contacts (SC) and two with an (N.O.) contact).

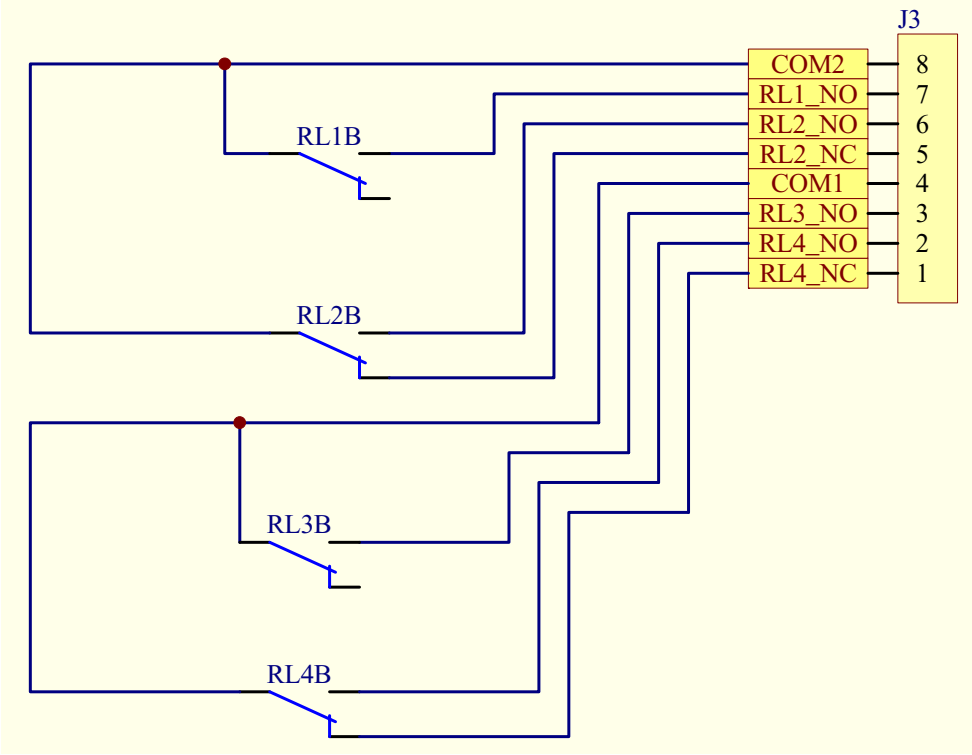


Figure 2: Contacts on the internal relays and how they are connected to the connector

It is also possible to have the same signal associated with several contacts, as shown in Table 1. This configuration is achieved by moving the straps on jumpers SW1 – SW8. The default configuration of the jumpers is shown in Figure 3. Refer to Table 1 for indications on how to modify the initial configuration.

E.g: to associate the “Battery Low” signal with relay RL1, insert the strap between jumper 1 and jumper 2 in the SW2 column. N.B. In this case, column SW1 must be left free.

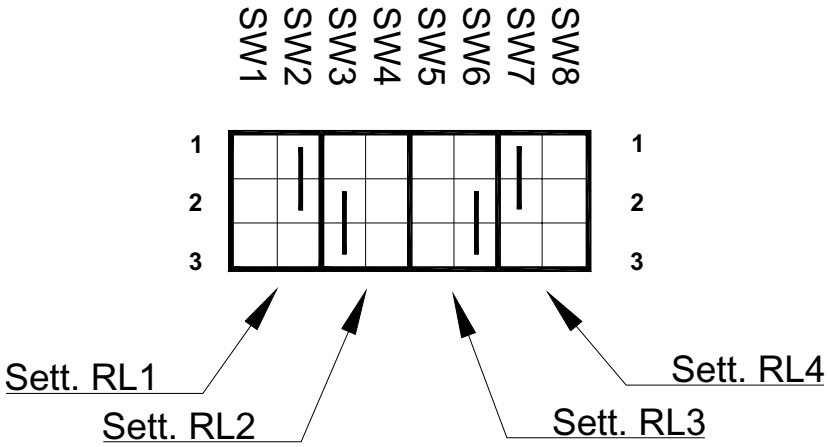


Figure 3

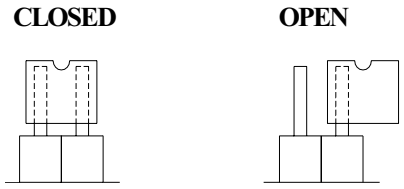
Command	RL1(N.O.)	RL2(SC.)	RL3(N.O.)	RL4(SC.)
Battery Working	SW1(2-3)	SW3(2-3) Default	SW5(2-3)	SW7(2-3)
Battery Low	SW2(1-2) Default	SW4(1-2)	SW6(1-2)	SW8(1-2)
Alarm	SW2(2-3)	SW4(2-3)	SW6(2-3) Default	SW8(2-3)
Bypass	SW1(1-2)	SW3(1-2)	SW5(1-2)	SW7(1-2) Default

Table 1: Signal-relay association configuration

Warning. Configuration jumpers must never be connected across adjacent SW’s (referring to Figure 3, the jumpers must not be positioned horizontally). Moreover, the same relay must not be associated with two different signals.

CONFIGURATION OF DELAY TIMES ON THE CONTACTS PORT

Another configuration inserts a relay switching delay of approximately 8s from the activation of the command signal. The delay may be useful for filtering brief unwanted signals such as sudden mains blackouts, switching to bypass due to distorting loads, etc. The default configuration and the association between the signals and jumpers are shown in Table 2. The delay is active when the jumper is closed.

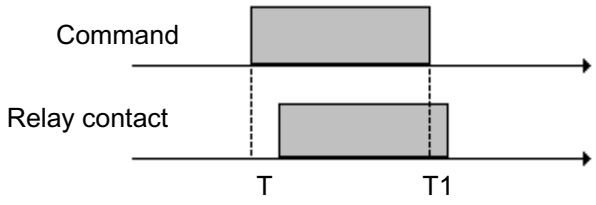


***2-pin Jumper (JP1…JP4)*:** graphic example of various setting possibilities

Command	Associated Jumper	Default Configuration
Battery Working	JP1	Closed
Battery Low	JP2	Open
Bypass	JP3	Open
Alarm	JP4	Open

Table 2

N.B. The activation of the delay effects both the closing and opening of the relay, as shown in the figure.



4 INSTALLING THE CARD

Only for installation on UPS without ESD

the UPS will shutdown immediately if the card is installed and the J1 female connector is not inserted.

Only for installation on UPS with ESD

- **to use the EPO function it is necessary remove the J1 connector's jumper of this board and leave the UPS's connector;**
- **to use the Shut-down (RSD) function it is necessary to remove the jumper of UPS's EPO connector.**
  (Note: see the ESD/RSD configuration on the user's manual)

If one of the previous operations is not applied the EPO and/or RSD function do not determine the switching off of the UPS.

- Remove the two screws that hold the expansion slot cover in place.
- Insert the card (as it is "Hot Swappable" it can be inserted or removed even while the UPS is operating).
- Close the slot with the cover supplied in the kit and fasten it in place using the two screws that were removed previously.